pharynx is less evident. The mouth seems to be within the anterior haptor rather than slightly posterior to it. The dorsal cuticular ridges of the posterior end were not seen in *Loimosina*. Most specimens, however, were not favorable to show these structures. If present, they are probably weakly developed.

Price classified the subfamily Loimoinae in the family Monocotylidae. Relationships to other Monocotylidae are seen in the character of the posterior haptor, in the digestive system, and in the terminal male organs. The chief difference from other Monocotylidae is the form of the ovary, which is not U-shaped and does not send a loop around one caecum, but has an irregular form, at least usually consisting of loose cells in sinuous branching tubes.

The following diagnoses are suggested:

Loimoinae: Monocotylidae with ovary not U-shaped and not sending a loop around one caecum, but consisting of loose cells usually in sinuous tubes; anterior haptor with one to three pairs of loculi or preoral suckers; posterior haptor with one pair of large hooks and numerous small hooks; eye spots lacking; two pairs of dorsal, posterior, transverse, cuticular ridges usually present; pharynx with wide muscular bands and anterior sphincter; caeca simple; male pore and uterine pore median, near together; vagina present; vaginal pore ventral, to left of midline; several tandem testes, or single testis; ejaculatory bulb and chitinous cirrus present; prostatic gland present; external seminal vesicle with ascending and descending sections, crossing cirrus or ejaculatory bulb dorsally; uterus short and straight; egg typically with filament; parasites on gills of sharks.

Loimos: Loimoinae with one or two pairs of preoral suckers; cirrus well developed; several tandem testes; dorsal, posterior, cuticular ridges well developed. Type species: *Loimos salpinggoides* MacCallum, 1917.

Loimosina: Loimoinae with three pairs of preoral suckers; cirrus rudimentary; testis single, deeply lobed; prostatic bulb well developed; posterior cuticular ridges inconspicuous or lacking. Type species: *Loimosina wilsoni.*

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ZOOLOGY.—*Description of a new species of Amphipoda of the genus* Anisogammarus *from Oregon.*[1]

CLARENCE R. SHOEMAKER, U. S. National Museum.

When recently looking up specimens of *Anisogammarus ramellus* among the unidentified Amphipoda in the collection of the National Museum, I noticed examples of this genus from Big Creek, Lincoln County, Oreg., possessing characters quite different from those of *A. ramellus.* Upon study, these specimens proved to represent a new species, which I here describe and designate as *Anisogammarus oregonensis.* Heretofore, *A. ramellus* (Weckel) has been the only species described from the fresh waters of North America. Four fresh-water species of this genus have been described: *A. ramellus* (Weckel), known from California and Oregon; *A. annandalei* (Tattersall), from China and Japan; *A. kygi* (Dershavin), from Kamchatka; and *A. jesoensis* Schellenberg, from Jeso, Japan. *A. oregonensis* appears to resemble most closely *A. jesoensis* but is distinguished at once from it by the possession of a much more elaborate dorsal armature of the metasome and urosome and by the absence of plumose setae from the third uropods.

Anisogammarus (Eogammarus) oregonensis, n. sp.

Male.—Head scarcely produced into a rostrum; side lobes broadly truncate, with upper and lower corners evenly rounding; eye rather large, reniform, and black. Antenna 1 about two-thirds the length of the body; second joint

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a little shorter than the first; third joint half the length of the second; flagellum consisting of about 29 or 30 joints; accessory flagellum of four normal joints and one very short terminal one. Antenna 2 about two-thirds the length of antenna 1; first joint and gland cone of second joint very prominent; fourth joint a little longer than fifth; flagellum without calceoli,

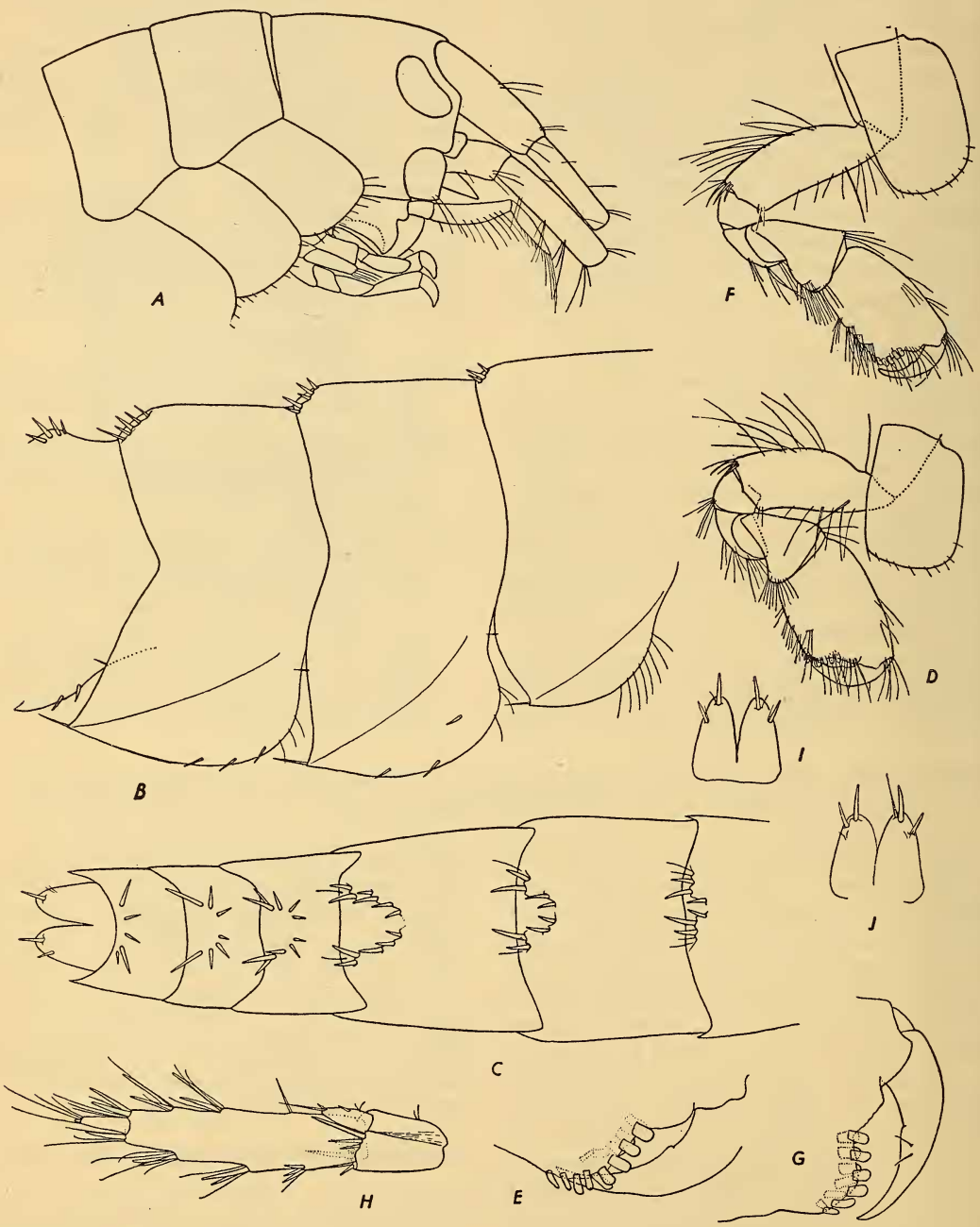

Fig. 1.—*Anisogammarus oregonensis*, new species: Male: *A*, anterior end of animal; *B*, metasome from the side; *C*, metasome, urosome, and telson from above; *D*, gnathopod 1; *E*, palm and seventh joint of gnathopod 1; *F*, gnathopod 2; *G*, palm and seventh joint of gnathopod 2; *H*, uropod 3; *I* and *J*, telsons of other males.

and composed of about 15 joints. Mandible with four teeth on cutting edge; accessory plate well developed and complex; five serrulate spines and two setae in spine row; molar large and strong; palp with third joint very little shorter than the second. Maxilla 1, inner plate with 13 or 14 plumose setae and several short terminal setae; outer plate with 11 pectinate

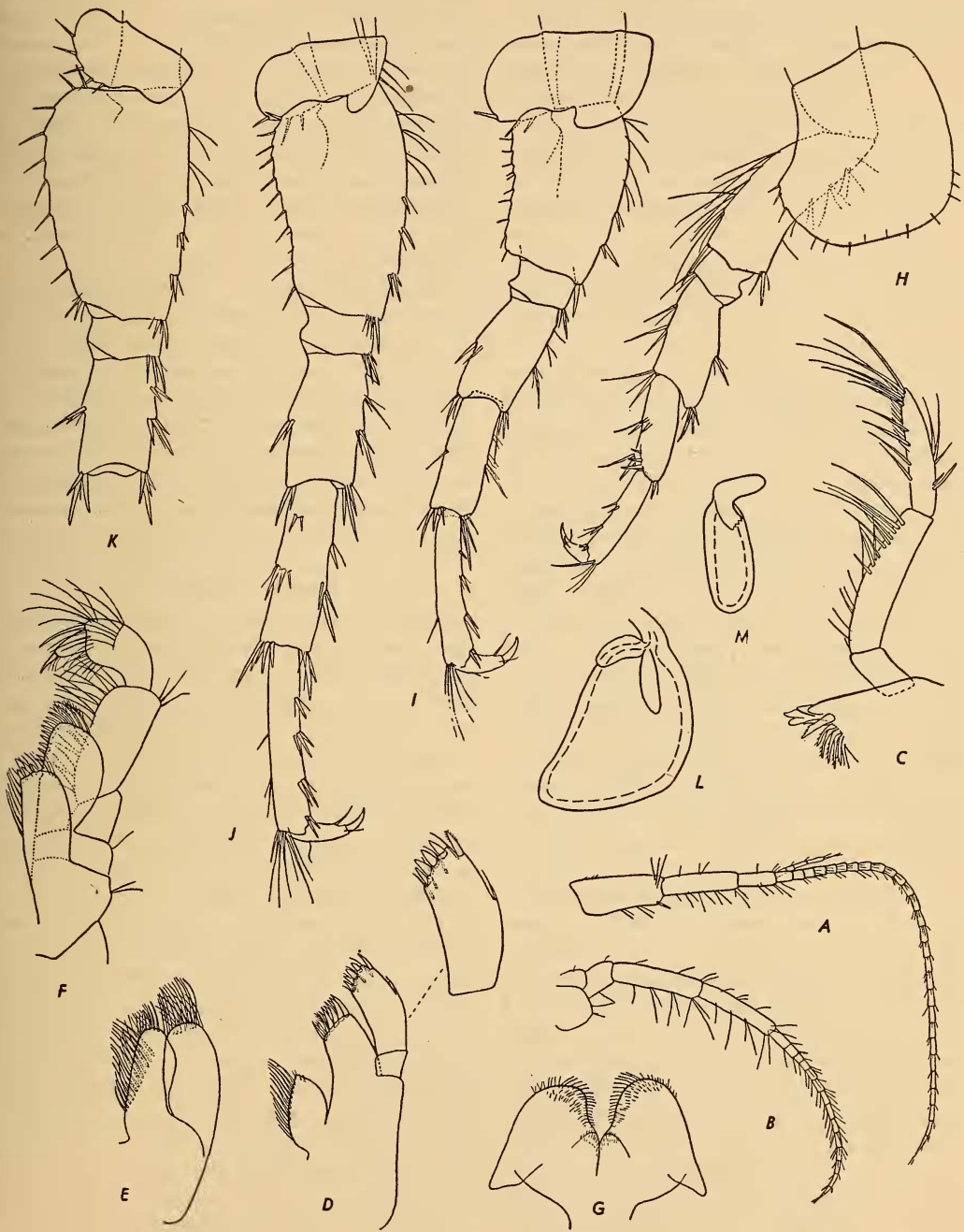

Fig. 2.—*Anisogammarus oregonensis*, new species: Male: *A*, antenna 1; *B*, antenna 2; *C*, mandible; *D*, maxilla 1; *E*, maxilla 2; *F*, maxilliped; *G*, lower lip; *H*, peraeopod 2; *I*, peraeopod 3; *J*, peraeopod 4; *K*, peraeopod 5; *L*, coxal gill of gnathopod 2; *M*, coxal gill of peraeopod 5.

and serrate spine teeth; palp with five apical teeth, the outer of which is very finely serrulate, outside surface of palp with four subapical setae, and one seta near the center of the outside margin of the second joint. Maxilla 2, inner plate bearing submarginal row of about 13 plumose setae. Maxilliped, inner plate armed with three stout spine teeth; outer plate armed on upper half of inner margin with 10 spine teeth and on the rounding distal margin with four or five curved serrulate spines; palp with third joint strongly curved; fourth joint bearing stout nail, at the base of which are three or four setules. Lower lip with inner lobes very indistinct and lateral corners short and obtuse.

Gnathopod 1 a little shorter but stouter than 2; the sixth joint not much longer than wide, the hind margin bearing about four groups of slender spines, each group containing only a few spines; palm oblique, concave, and armed with peglike teeth, which are somewhat crowded together at the broadly rounding defining angle; seventh joint strong, much curved, and bearing a slight protuberance on the inner curved edge. The seventh joint closes upon the inside surface of the sixth joint and rests against an inner row of peglike teeth. Gnathopod 2, sixth joint much longer than wide, the hind margin bearing four or five groups of stout spines, each group composed of both straight and curved spines; palm oblique, concave, and armed with a row of peglike teeth on the outside margin and a row on the inside margin. These teeth are evenly spaced and not crowded together at the rounding palmar angle as they are in gnathopod 1. Seventh joint strong and curved and bearing a low protuberance on the inner curved margin. The seventh joint closes against the palmar angle and rests between the two rows of teeth.

Peraeopods 1 and 2 much alike in form, but peraeopod 1 a little the longer. Peraeopod 3 about equal in length to peraeopod 1; second joint with hind margin slightly concave and lower hind corner forming nearly a right angle; seventh joint strong, curved, and bearing two setae at the base of the nail. Peraeopod 4 longer than 3 but not so long as 5; second joint with hind margin slightly concave, lower hind angle not perceptible; the succeeding joints as shown in Fig. 2, *J*. Peraeopod 5, second joint with hind margin evenly convex; the rest of the limb as shown for peraeopod 4.

Coxal plates 1–4 are about as deep as their respective segments; lower front corners broadly rounding, lower margins bearing spinules. Coxal plates 5 and 6 with lower front corner produced into a small lobe, lower hind margin of plates bearing three or four spines. Coxal plate 7 with lower hind margin bearing five or six spines. The coxal gills bear cylindrical accessory gills which are attached to the upper edge of the primary gill where it joins the peduncle, Fig. 2, *L*, *M*. Each of the first four gills (those of gnathopod 2 and peraeopods 1–3) bears two cylindrical accessory gills, and the last two gills (those of peraeopods 4 and 5) possess one cylindrical accessory gill each.

Metasome segments 1–3 with their lower hind corners slightly produced and bearing an apical spine; lower lateral hind margins each with a spine near the center; lower margin of segments 2 and 3 bearing a few spines and setae, that of segment 1 bearing only setae. The posterodorsal surface of each of the metasome and urosome segments bears a cluster of spines and an occasional seta. The arrangement of these spines is shown in Fig. 1, *B*, *C*.

Uropod 1 reaching back to about two-thirds the distance along the outer ramus of uropod 3, peduncle with two spines on upper outer margin and two at outer distal corner; outer ramus very little shorter than inner with two spines on the outer margin and two on the inner margin; inner ramus with three spines on inner margin and none on outer margin. Uropod 2 reaching back to about two-thirds the distance along the rami of uropod 1, peduncle with two spines on upper outer margin and with one outer distal spine; outer ramus noticeably shorter than inner, with one or two spines on outer margin and none on the inner; inner ramus with two spines on inner margin and none on the outer. Uropod 3, first joint of outer ramus not quite three times as long as the peduncle; second joint about one-fifth as long as the first; inner ramus very short and about the length of the second joint of the outer ramus. The armature of uropod 3, which consists of spines and simple setae, is shown in Fig. 1, *H*. Telson reaching back to the end of or a little beyond the peduncle of uropod 3, deeply cleft, and with the rounding lobes armed apically with a spine or a spine and a long seta, and the lateral margins usually bearing a spine toward the apex. As the arrangement of the

spines on the telson is somewhat variable, I have figured the telson of three different males. Length of male from rostrum to end of uropod 3, 10 or 10.5 mm.

Female.—Female in general like the male, the characters differing only in degree. The antennae are shorter, the flagellum of antenna 1 consisting of about 21 joints and that of antenna 2 of about 12 or 13 joints. The gnathopods are smaller and weaker, and the palm of gnathopod 1 is more oblique and that of gnathopod 2 less oblique. The peraeopods appear to be shorter and weaker. The groups of spines on the metasome and urosome contain fewer spines. Uropod 3 is shorter and is armed with fewer spines and setae. The gill arrangement is the same as in the male. The fully grown females are as long as the males.

Type.—A male, U.S.N.M. 79439, collected by R. E. Dimick, at Big Creek, south of Waldport, Lincoln County, Oreg.

Specimens of this species have been taken by R. E. Dimick in Lincoln County, Oreg., at Big Creek and Fogarty Creek, August 6, 1932, and January 12, 1933; and at Mercer Lake, Lane County, Oreg., November 20, 1932.

ICHTHYOLOGY.—*A new genus and species of pimelodid catfish from Colombia.*[1]

LEONARD P. SCHULTZ, U. S. National Museum.

Recently, while studying some fishes sent to the United States National Museum several years ago by Brother Nicéforo María, a small pimelodid catfish was found that can not be identified with any genus or species as yet described from South America.

Imparales, n. gen.

Genotype.—*Imparales mariai*, n. sp.

This new genus of pimelodid catfish from the Río Meta system at Villavicencio, Colombia (Orinoco drainage), is related to *Imparfinis* Eigenmann and to *Pariolius* Cope.

Body elongate, the greatest depth about 9 in the standard length; head flattened, about intermediate between *Imparfinis microps* Eigenmann and *Cetopsorhamdia* Eigenmann; snout not produced, the jaws equal, mouth terminal; two maxillary barbels; four mental barbels, their bases practically in a straight line; no nasal barbels; premaxillary with a band of villiform teeth, the outer lateral angles rounded and not projecting backward; narrow band of villiform teeth on lower jaw; no teeth on vomer or palatines; the posterior pair of nasal openings slightly farther apart than tubular anterior nasal openings; eye small, without free margin and situated just in front of middle of length of head; head covered with rather fleshy skin, but a small fontanel shows in middorsal line behind orbits; width of head $1\frac{1}{2}$ in its length; occipital process very short or lacking, the space from occiput to dorsal origin being fleshy; dorsal and pectoral spines entirely absent; pelvic insertions under base of first branched dorsal ray; the origin of dorsal and insertion of pelvic fins well in advance of middle of standard length; adipose fin long, its origin an equal distance between middle of length of pectoral fin and midcaudal fin base; the adipose fin posteriorly over caudal peduncle has a deep notch, then continues so it is confluent with the caudal fin; anal origin only a trifle behind a vertical line through adipose origin; anal fin short, of five graduated simple soft rays followed by six branched rays; caudal fin deeply forked, the upper lobe much longer than the lower, both lobes rounded distally; anus between middle of length of pelvic fins, the latter short and not quite reaching halfway to the anal origin; the lateral line appears to end near midaxis of body over front of anal fin base.

Among those pimelodid genera without a free orbital rim, lacking spines in dorsal and pectoral fins, and with as few as 12 anal rays, this new genus differs in having a forked caudal fin with the upper lobe greatly elongate and the adipose fin confluent with caudal fin. *Rhamdiopsis* Haseman, *Acentronichthys* Eigenmann and Eigenmann, and *Heptapterus* Bleeker all have 18 to 28 anal rays, while the new genus has but 12. *Chasmocranus* Eigenmann has the premaxillary band of teeth with backwardly projecting angles and the caudal fin not deeply incised. *Pariolius* Cope has the caudal fin

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